

Notes on fishes collected in the Cameroons by Mr.
Y. Sjöstedt

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A collection of freshwater-fishes brought from the Cameroons by Mr. Y. Sjöstedt contained the following species:

Periophthalmus koelbreuteri PALLAS var. ε . *P. papilio* BL. & SCHN.

This fish was extremely abundant on the muddy banks among the mangroves, when the tide was low. They even skipped up on the roots of the mangroves and often remained immovable for a good while in the hottest sunshine. Each leap usually covered a space of from 1 to 3 cm. in each step, but if frightened they were capable of making longer leaps back into the water. When approaching the banks they swim with their eyes above the surface of the water. They feed on insects crabs etc. and seem to be provided with a rather good appetite. In the stomach of a 10 cm. specimen I found a $2\frac{1}{2}$ cm. *Blatta*. In the intestines of other specimens I found remains of various insects and legs and claws of crabs, the bodies of which, very probably, the fishes were not able to swallow. The hard shells of the crab-legs pass undigested through the intestines. Mr. Sjöstedt also saw the *Periophthalmi* feed on human excrements. On the other hand they are themselves the main food of birds of the families *Alcedinidæ*, *Ardeidæ* and *Scopidæ*. Mr. Sjöstedt observed this fish on the delta-lands of the rivers Meme, Massake, Rio del Rey, Bekongolo as far as the salt water reached at high tide.

The largest specimen, caught at Ekundu, measured 13 cm.

I have counted the number of rays in the vertical fins and found them as follows

in the first dorsal	11	in the second dorsal	14	in the anal	11
» » » »	10	» » » »	14	» » » »	11
» » » »	11	» » » »	14	» » » »	11
» » » »	11	» » » »	14	» » » »	11
» » » »	11	» » » »	14	» » » »	11
» » » »	11	» » » »	15	» » » »	11
» » » »	11	» » » »	15	» » » »	11
» » » »	12	» » » »	14	» » » »	11
» » » »	11	» » » »	14	» » » »	11

It seems thus to be rather constant:

D. 11—14; A. 11.

The first ray of the first dorsal fin is often more or less produced. This is the case with two thirds (the 6 last ones), including the largest of the above mentioned specimens.

As this fish has been found in Sierra Leone, Liberia and other places in West Africa it was not astonishing to find it among Mr. Sjöstedts fishes from the Cameroons.

Eleotris Büttikoferi STEINDACHNER.

Fishes, which I have classified as belonging to this species, were caught in a muddy rivulet running through the farm of Bonge to the river Meme.

It seems to be a rather variable species, so that specimens caught in exactly the same place are different in some respects, for instance, in one specimen of 11 cm. length there are only a few scattered scales between the hind margin of the eye and the hind margin of the præoperculum on one side and none on the other. The same specimen has a rather short and bumped nose the length of which is contained 4 times in that of the head. The length of the head is contained a little more than three times in the total length to the base of the caudal fin. The number of scales and other characteristics are the same as STEINDACHNER gives (»Die Fische Liberias», Notes Leyden Mus. Vol. XVI, N:o I & II, 1894, p. 29) and therefore I regard this

specimen only as a »pug-variety». In some other specimens I have seen a few scattered scales on the cheeks and the præoperculum. The above mentioned have been middle-sized specimens of about 10 cm. length. In the collection are two smaller specimens of 6 cm. length, but the measurements of these are about the same, as the length of the nose is contained about 4 and the distance between the eyes $3\frac{1}{2}$ times (or a little more) in the length of the head. When therefore Steindachner speaks about specimens 6 cm. long, in which the width of the front is contained 6 times in the length of the head, I suppose they belong to some other form; this he himself suggests as possible. Both small specimens from the Cameroons show scales behind the eyes.

A black spot at the upper root of the pectoral is quite distinct on well preserved specimens especially on the young ones. STEINDACHNER does not mention that spot, but on his photograph of this species the root of the pectoral is darker (l. c. Pl. I. fig. 2).

Eleotris melanosoma BLECK. seems to be very closely allied to this species.

The *Eleotris* from the Cameroons is eaten by the natives, who catch them in small seines and dipnets.

Eleotris Büttikoferi is described by STEINDACHNER from Liberia.

Mastacembelus cryptacanthus GÜNTHER.

Five specimens from a muddy rivulet Bonge, Cameroons.

I counted the number of rays and found them as follows: in a 3 cm. long specimen:

D. XXX—130; A. II—127;

in a $4\frac{1}{2}$ cm. long specimen:

D. XXIX—117; A. II—117;

in a 6 cm. long specimen:

D. XXX—123; A. II—126.

The number of rays is thus variable, but seems neither to increase nor to decrease with age, it is much larger however than in *M. Marchei* SAUVAGE, which species inhabits the rivers of Liberia.

The coloration of the five specimens from the Cameroons is about the same, brownish above, lighter below, covered all over with light spots which are a little larger than the eye. Dorsal and caudal fins with brown spots, anal plain.

SCHILTHUIS and SAUVAGE have reported this fish from the Congo.

Ophiocephalus obscurus GÜNTHER.

One specimen with number of scales in the lateral line 66 + 4.

This species is recorded from Liberia by STEINDACHNER from the Congo by SCHILTHUIS and from the Cameroons and the upper Nile-region by GÜNTHER and thus seems to be largely distributed over the African continent.

Hemichromis fasciatus PETERS.

Two specimens.

This species is also known from Liberia, Togoland, Gaboon and other parts of tropical West Africa.

Clarias camerunensis n. sp.

Two young individuals of a species of *Clarias* resemble to a certain degree *Clarias gabonensis* GÜNTHER, but are on the other hand in some respects so different from that species that I dare not refer them to it.

The length of the head is contained in the length of the body only about four times and a half, or a third. The head is very much depressed and flattened, so that its length is not much greater than its width over the opercles. The interorbital space however is contained nearly twice in the length of the head, as the small eyes are situated on the upper surface of the head. The head is smooth above. Processus occipitalis rather pointed, about 25—30°. The nasal barbel nearly reaching the end of the pectoral spine. The maxillary barbel in one specimen reaching the root of the ventrals, in the other it is still longer. The outer mandibular barbel reaching the tip of the pectoral fin or a little beyond the same, the inner extending to the root of the pectoral. The band of vomerine teeth is not produced into a posterior process, but in one specimen there are a few

scattered teeth behind the middle of the band. The band of vomerine teeth is narrow, so that that of the intermaxillaries is more than twice as broad. The lower jaw is provided with a broad band of teeth. The proportion between the band of teeth of the vomer and the intermaxillaries seems to be a valuable character which cannot vary very much with age and by the same *Clarias camerunensis* is easily recognized as different from *Clarias macromystax* GÜNTHER and *Clarias gabonensis* GÜNTHER, with which it otherwise has several affinities. The dorsal and anal fins are not united with the caudal. The number of rays in the dorsal fin 81, in the anal fin 59 or 60. The shape of the dorsal fin is also different from that of *Clarias gabonensis* GÜNTHER according to the picture given by SAUVAGE,¹⁾ as it is distinctly rounded behind, not angular. The pectoral spine is serrated on the outside, more than half as long as the fin.

The largest specimen measures 88 mm. of which the caudal fin measures 10 mm. The distance from the vent to the snout is 7 mm. shorter than to the root of the caudal fin. The origin of the dorsal fin is a little behind the tip of the pectorals. By this character *C. camerunensis* is also to be distinguished from *C. macromystax* and *C. gabonensis*. The ventral fins are smaller than the pectorals but reach a little beyond the origin of the anal fin, in which respect this form is different to *C. gabonensis*, at least according to SAUVAGE'S picture l. c.

The coloration seems to have been uniform, but I dare not say more about it, as the specimens have been preserved for some time in rum.

The accessory branchial organ of the second branchial arch is very small, and only provided with two short branches; that of the second arch is larger and divided into several branches. The gills of the third arch are still larger than the others and extend further back into the accessory cavity.

¹⁾ SAUVAGE: Faune ichthyologique de l'Ogôoue, Nouv. Arch. du Museum, 2. série, T. 3. Pl. I fig. 2, Paris 1880.

Gymnolabes typus GÜNTHER forma *heterocercalis* LÖNNB.

Two specimens of this peculiar fish are preserved by Mr. Sjöstedt from the Cameroons. The larger measured $24\frac{1}{2}$, the smaller nearly 12 cm. The number of rays in dorsal and anal fins is the same as is recorded by GÜNTHER¹⁾ as is also the case with the relative measurements of the head, barbels and body; moreover the characteristic shape of the head is the same as in the picture given by GÜNTHER (m. c. Pl. 3 fig. A). There would thus not be any doubt whatever about the identity of these two specimens, if not the shape of their caudal fin was so peculiar, for it is heterocercal to its exterior shape, especially in the larger specimen. It has however no corresponding change in the interior structure, but this form is given to the caudal fin by its bending upwards a little, to a closer connection with the dorsal than with the anal fin. The pectoral spine is serrated on both sides. Number of ventral rays six (5 according to GÜNTHER).

The postbranchial cavity is well developed and contains a rather large postbranchial organ with several processes on the fourth branchial arch (none on the second and third, on which GÜNTHER found »simple securiform» processes).²⁾

Pimelodus guttatus n. sp.

Two specimens from the river N'dian must be referred to this genus, but I have not been able to identify them with any species hitherto described.³⁾ They show themselves belonging to the group *Pimelodina* by not having any of the, from each other remote, nostrils provided with a barbel. The palate is toothless and the gillmembranes notched in the middle. The dorsal fin has only 7 soft rays.

Both specimens are quite different from the two already known african *Pimelodonts*, *Pimelodus platychir* GÜNTHER and *Pimelodus balayi* SAUVAGE, by relative measurements, number of rays etc. as can be seen from the following description.

¹⁾ Ann. and Mag. of Nat. Hist. Bd. XX London 1867 p. 111.

²⁾ I do not know if this difference is of specific value.

³⁾ In some respects they resemble *Auchenaspis biscutatus* GEOFFR.

The head is depressed, entirely covered with soft skin. Its length is contained about three times in the length of the body without the caudal fin (in *P. platyichir* 4 times and a third), it is longer than it is broad. The height of the body is contained five times in the length (seven in *P. platyichir*). The tail and posterior part of the body is compressed. The eyes are small, nearly directed upwards, placed on the same distance from the end of the operculum, as from that of the snout. The width of the interorbital space is shorter than the length of the rounded snout. The occipital process is shorter than the anterior part of the basal plate of the dorsal, the former being about as long as the diameter of the eye. The maxillary barbels reach the base of the pectoral spine, the outer mandibular barbels, which are situated at the angle of the mouth extend beyond the root of the pectoral fin, the inner mandibular barbels are about half as long. The anterior nostril is tubiform on the upper lip. The posterior is at the same distance from the anterior nostril as from the middle of the eye. The teeth are villiform in both jaws. The gillopenings are wide but the gillmembranes are anteriorly united, which characteristic possibly separates this form from the other African *Pimelodonts*, at least from *P. platyichir*, in which species they are »only slightly united in front» (GÜNTHER). Dorsal rays: I—7. The dorsal spine is serrated in front and shorter than the pectoral spine, which is strongly serrated behind, less so in front. The length of the base of the pectoral fin is much longer than its distance from the occiput, but only about one half of the length of the large adipose fin. The adipose fin is very long. It extends nearly to the root of the caudal, and in front of the regular adipose fin there is a slight dermal crest extending nearly to the dorsal fin, otherwise the interspace would be about two thirds of the length of the base of the dorsal fin (in *P. balayi* »fere nullum»). The pectoral fin with a strong spine and 8 soft rays (no spine and 10 soft rays in *P. platyichir*). The anal fin with 9 soft rays (8 in *P. platyichir*, 12 in *P. balayi*). The caudal fin is rounded (»emarginate with the lobes pointed» in *P. platyichir*

according to GÜNTHER, »un peu échancrée» in *P. balayi* according to SAUVAGE). The ventral fins with six soft rays a little shorter than the pectorals. The vent is about midway between the posterior margin of the opercle and the root of the caudal.

The coloration from which the fish has derived its name is pale brownish, with round dark brown spots, which are larger on the back and the sides, than on the belly. These upper spots sometimes become confluent, and then form five or six dark cross-bars. The lower smaller spots are not confluent, situated between and below the crossbars. The head is darker with round black spots. The dorsal and caudal fins with round brown spots.

Mr. SJÖSTEDT observed these fishes hiding under stones in the river. The natives regard them as provided with electric power. The above described specimens measured between 6 and 7 cm.

The two other African *Pimelodons* are found in the West-African region *Pimelodus platychir* in Sierra Leone (GÜNTHER) and *Pimelodus balayi* in Ogôoné, Congo (SAUVAGE). This new form seems to be in several respects¹⁾ not a little related to the Brazilian species *P. bufonius* CUV. & VALENC. and *P. raninus* CUV. & VALENC. and thus form a connecting link to the South-American fauna.

Synodontis marmoratus n. sp.

From the muddy rivulet at Bonge Mr. SJÖSTEDT has obtained 3 small specimens of a *Synodontis*. These can possibly be the young of some species already described, but at present this can not be ascertained, and I do not think so;²⁾ therefore I rather prefer to describe them than to bring confusion into the synonymic.

The gill-opening extends downwards to before the root of the pectoral fin. Mandibular teeth slender, curved, about half as long as the diameter of the eye, their number from 14—18,

¹⁾ Rounded caudal, short basal, anal bone of dorsal, serrated pectoral spine etc.

²⁾ The number and size of the teeth, number of fin rays, shape and size of spines, relative measurements etc. do not agree with the description of other species.

close together in a single series. Maxillary barbel longer than head, extending towards the middle of the humeral process, not fringed. Mandibulary barbels fringed, especially the shorter inner ones, with short and broad filaments. The pectoral spine stout, depressed, striated, strongly serrated along both edges, as well longer as stronger than the dorsal spine, but shorter than the head. The dorsal spine is serrated behind but not in front where only one obsolete denticulation can hardly be seen at the tip, its length equals the distance from the tip of the snout to the middle of the eye. It is thus smaller than in most species already described, but this characteristic can possibly change with age. The number of soft rays in the dorsal fin 7. The humeral process is more than twice as long as it is high. The nuchal carapace is longer than it is broad, extending beyond the dorsal spine on the sides. The distance between the dorsal and adipose fins is considerably longer than the base of the former in one specimen, equals the same length in two. The length of the adipose fin is contained about four times in the length of the body, but the characteristics from the adipose fin seem not to be very reliable. Number of anal rays 11—12, the first one small. The ventral fins do not reach the anal fin. The caudal fin is deeply forked. The length of the largest specimen is 52 mm. with caudal, 39 mm. without the same. The length of the head is 12 mm.

The coloration is blackish brown, marbled with white, fins white, marbled with black.

Malapterurus beninensis MURRAY, GÜNTHER.

This fish is, according to Mr. Y. SJÖSTEDT, the most common of all freshwater fishes in the Cameroons especially in small muddy rivulets. The natives like it very much as a foodfish and catch it and other fishes in small seines and dipnets with a semicircular opening, but dread their electric power.

The larger specimens are uniform, dark coloured, somewhat lighter below, with some scattered small round black spots on the sides of the body.

Young specimens are provided with a black cross-band at the base of the caudal fin, which is separated by two white bands from two other black, but less sharply defined, cross-bands, one descending from the origin of the adipose fin, the other on the caudal fin. On one specimen, the tip of the caudal fin is margined by a fourth black band. The smallest specimen, only measuring 38 mm., has no black bands on the caudal fin. The largest specimen, on which the black bands are conspicuous measures about 17 cm. The younger specimens are much lighter than the older, which have no white margin on anal and caudal fins. Number of anal rays 9.

Malapterurus beninensis is not mentioned by STEINDACHNER among Liberias freshwaterfishes and not by SCHILTHUIS among Congos. GÜNTHERS specimens were from old Calabar.

Haplochilus infrafasciatus GÜNTHER.

One beautiful specimen from a rivulet with stony bottom and clear water near the waterfall of the river N'dian.

The carmine-red spots or streaks on the scales, which STEINDACHNER has described in »die Fische Liberias» (l. c. p. 77), are very bright and form 6 longitudinal rows. The blackish lateral band (GÜNTHER) is not to be seen. The »six blackisch brown crossbars» become gradually darker towards the caudal fin. The first, second, third and fifth bands are double, or divided into two.

Behind the eye is on each side a row of more or less vertical carmine-red steaks extending to the upper hind margin of the opercle. Another red band extends from eye to eye along the margin of the forehead and the upper part of the nose. Dorsal fin with carmine-red spots. Caudal and anal fins not speckled, but margined with black and red, pectorals and ventrals not coloured, nor margined.

Number of rays in the anal fin 17, it thus exceeds as well the number mentioned by GÜNTHER in the original description¹⁾ (14), as even the one (16) in STEINDACHNERS notes on specimens from Liberia (l. c. p. 77) Number of dorsal rays 11.

¹⁾ Catal. Fish. Brit. Mus. VI p. 313.

From the above given notes can be seen that this species is variable as well in colour as in other characteristics.

Haplochilus infra fasciatus is a West African species. From West Africa and Upper Nile another species of *Haplochilus* is described by GÜNTHER under the name *Haplochilus fasciolatus* (l. c. p. 358). The measurements of *H. infra fasciatus* and *H. fasciolatus* are nearly the same. According to the descriptions and diagnoses almost the only difference in measurement is, that the snout of *H. fasciolatus* is comparatively a little longer than that of *H. infra fasciatus*. But STEINDACHNER has shown that the relative length of the snout varies so that it can be contained from $2\frac{1}{2}$ to 3 times¹⁾ in the length of the head in *H. infra fasciatus*. The same is also the case with the diameter of the eye which is $\frac{1}{4}$ — $\frac{1}{3}$ of the same length. *Haplochilus fasciolatus* is said to have somewhat longer pectorals, so that they reach beyond the root of the ventrals, but this can hardly be regarded as a specific character. The coloration and number of anal rays are varying:

Anal rays in <i>H. infra fasciatus</i>	GÜNTHER	14
„ „ „ „ „	STEINDACHNER	16
„ „ „ „ „	from the Cameroons . .	17
„ „ „ „ <i>fasciolatus</i>	GÜNTHER	18

The red streaks on the scales are to be found on STEINDACHNER's specimens of *H. infra fasciatus*, GÜNTHER's of *H. fasciolatus* and the above described specimen from the Cameroons. STEINDACHNER found dark crossbars on both sides of three, and on one side of one specimen; on the other side of this specimen was a longitudinal band as Günther mentions in the diagnosis of *H. infra fasciatus*. The crossbars of the species from the Cameroons are already described. The typical *H. infra fasciatus* ought to have »six blackish-brown crossbars», the typical *H. fasciolatus* »eight or nine oblique narrow brownish streaks, descending from the middle of the side forwards». If we consider the variability that already is stated, it does not seem impossible

¹⁾ l. c. p. 77.

that *H. fasciolatus* and *infracasciatus* are forms of the same species, and if such is the case they ought to be known by the latter name, which is the older.

The specimen from the Cameroons resembles, by its greater number of anal rays and rather large pectorals, the *fasciolatus*-type.

Fundulus bivittatus n. sp.

A species of the genus *Fundulus* is represented in SJÖSTEDTS collection by one specimen, that can not possibly, so far as I can see, be referred to any form hitherto described, and I therefore propose to call it *Fundulus bivittatus* from its characteristic coloration. There is only one specimen in the collection mentioned and its measurements are:

Total length	from tip of snout to	end of caudal fin	37 mm.
Length of body	»	»	» base of » » 30 mm.
Length of head	is contained in length of body	. . .	3,5 times
Depth of body	»	—»	» » » . . . 4,7 »
Length of snout	»	»	» » head about 3,2 »
Diameter of eye	»	»	» » » » 3,6 »
Interorbitalspace	»	»	» » » » 2 »

The head and anterior part of the body is depressed. The back is flattened to the origin of the dorsal fin. The lower jaw projects beyond the upper, diameter of the eye is a little shorter than the snout. The origin of the dorsal fin is about midway between the extremity of the caudal and the tip of the snout, corresponding to the 13th scale of the lateral line. The origin of the anal fin corresponds to the 12th—11th scale of the lateral line. Number of scales in the lateral line $26 + 2$. L. transv. from the origin of the dorsal fin to the vent 7. Number of rays in the dorsal fin 12, in the anal fin 14. The ventral fins nearly reach the origin of the anal fin. The pectoral fins extend beyond the root of the ventrals. The coloration is reddish brown, the margins of the scales are somewhat darker, more or less pronounced, with carmine red spots near the tip of the scales. Two rather broad dark brown bands run the entire length of the body.

The upper band extends round the upper and lower lips, through the eye, to the upper root of the caudal fin. The lower band unites with that of the other side to a semicircle under the chin, a little behind the extremity of the lower jaw, which is white between the upper and lower bands. It runs from there below the eye through the root of the pectoral fin (on which it forms a darker spot) to the base of the anal fin from thence following, the lower margin of the body to the base of the caudal fin. At the base of the caudal fin is a large red spot. The caudal and dorsal fins are spotted with red.

The outer teeth of both jaws are enlarged by which character this species indicates itself as belonging to the genus *Fundulus*.

The intestinal tract is also rather short. On the other hand this fish forms a link between the two genera *Fundulus* and *Haplochilus*, through the position of the dorsal fin behind the origin of the anal, which character it has in common with *Haplochilus*; but the dorsal fin is rather long as in *Fundulus*. *Fundulus bivittatus* resembles in this respect *Haplochilus playfairii* GÜNTHER from the Seychelles, but its enlarged teeth and short intestinal tract separate it from the whole genus *Haplochilus*.

As is already mentioned this species stands between *Haplochilus* and *Fundulus* and it certainly is better to refer it to the latter genus, although the dorsal commences behind the anal fin.

The above described specimen was caught in the same rivulet as the foregoing species, near the waterfall of the river N'dian.

Fundulus sjöstedti n. sp.

Of this species, which I have named in honor of the collector, I have had the opportunity to see a beautiful and well preserved male, and a female in less good condition. The former was caught in the same rivulet as the foregoing specimens, the latter at Bonge, together with *Eleotris Büttikoferi*, in a muddy rivulet.

The coloration of the male is splendid, brown with bright carmine-red markings. The sides of the head are reticulated with oblique red bands and narrower red streaks. A red band under the chin, along the curvature of the lower jaw. The sides of the anterior part of the body to about the tip of the pectoral fins is irregularly spotted with red spots, which are situated on the posterior half of the scales and therefore partly form longitudinal rows. Across the sides of the body, behind the pectoral fins to the base of the caudal, are 8 or 9 carmine-red vertical bars. The upper half of the caudal fin is provided with broad longitudinal red bands on the web between the rays, the lower half is partly streaked, partly spotted in the same way. Along the base of the dorsal fin extends a bright carmine-red band. The fin itself, as well as the pectoral and ventral fins, is spotted with red. The anal fin is also spotted with red, especially in its exterior part, where, the large spots become more or less confluent.

The coloration of the female is neither so bright nor so well preserved, but so much can be seen that at least both dorsal and anal fins have been spotted with red. On the scales of the body some red spots can also be traced.

Number of dorsal rays 17—18, but the first is nearly rudimentary; number of anal rays 17 in both sexes. In the female, the pectoral fins do not extend to the root of the ventral fins. In the male, on the contrary, the fins are considerably enlarged, so that the pectoral fins reach a good deal beyond the root of the ventral fins. In the female, the hindmost dorsal rays barely reach the first caudal rays; but the anal rays do not reach so far as to the caudal. In the male the posterior rays of the dorsal and anal fins are produced, filamentous, so that the former extend greatly beyond the root of the caudal and the latter less so. In the male also the middle rays (especially the ones in the upper part of the middle) of the caudal are strongly produced. The origin of the dorsal fin is in the male midway between the root of the caudal and the eye, in the female about

midway between the root of the caudal and the opercle, a little nearer to the latter. The origin of the dorsal fin is a little anterior to the origin of the anal fin in the male, in the female a little posterior to the same. The total length of the male including the caudal fin is 111 mm. without caudal 78 mm. The length of the female without the caudal fin 68 mm. The length of the head is contained in the length of the body without the caudal fin 3,7—3,6 times. The length of the snout is contained in the length of the head about 4 times. The diameter of the eye is contained about 4—4,2 times in the length of the head. The interorbital space 2,3—2,4 in the same length.

Number of scales in the lateral line 35 + 3, in a transv. line 11.

The lower jaw projects beyond the upper. The outermost series of the teeth is strongly developed, conical and curved inwards. Behind the rather broad band of small villiform teeth there is in both jaws a second series of enlarged teeth, but these are not so large as the outer. The strong development of the teeth indicates *Fundulus Sjöstedti* to be a fish of prey. The intestinal tract is short.

Fundulus Sjöstedti is related to *F. orthonotus* (PETERS) GÜNTHER, but the number of rays in the fins, as well as the number of scales in the lateral line is different. Besides all the anal rays of the female of *F. Sjöstedti* are articulated and the coloration as well is different in both species.

F. orthonotus is known from the east coast of Africa.

Syngnathus kaupii BLECKER.

A specimen of about 10 cm. length was caught at the Ekundu factory in the Cameroons, in a small rivulet, which running through the bushes empties its water in the mangrove-region, from where the *Syngnathus* had ascended. But when caught it lived in fresh water.

Total length with the caudal fin 99 mm.

Length of the caudal fin 4 mm.

Length of the head 14 mm.

Length of the snout $7\frac{1}{2}$ mm.

Length of the tail without the caudal fin . . . 59 mm.

Otherwise this specimen agrees in number of crests, plates and dorsal rays etc. with STEINDACHNERS description of his specimen from Liberia (l. c. p. 89).

The caudal fin is black. Across the back of the body and the tail about 9 darker bands are visible. Along the inferior margin of the body a row of ocellated spots can be seen.

From the above given notes it will be seen that the freshwaterfishes of the Cameroons, at least as yet, partly, are characteristic for that region, partly are found also in other neighbouring countries in West-Africa. The relatively large number of new forms speaks for the supposition that the first mentioned class possibly is rather numerous, but on the other hand it can depend upon the incomplete knowledge of this faunistic region. As Mr. SJÖSTEDT had no opportunity of collecting larger fishes, his collection from the Cameroons can not be regarded but as a very small exponent of the ichthyological fauna of that region. It is however very interesting and I here wish to express my thanks for his great kindness of letting me classify his specimens of this group which is now preserved and kept in the zoological museum of Upsala.

Addenda.

The above was already printed when I found together with some other animals two more species of fish in the collection from the Cameroons:

Mormyrus liberiensis STEINDACHNER D. 15, A. 28, L. 1. about 60.

A small specimen from Kitta, caught in a creek in the inner-most mangrove-region. Measurements etc. as in STEINDACHNERS description in »die Fische Liberias» (l. c.) p. 67—69.

Coloration dark brown, by means of very closely arranged dark brown spots.

Eleotris camerunensis n. sp. ?

Some specimens of *Eleotris* (not in very good condition) seem to be closely related to *E. siamensis* GÜNTHER, but as I dare not refer them to that species either, I provisorily name them *Eleotris camerunensis*. Number of dorsal rays 6 | 10—11. Number of anal rays 9—10. Lat. l. about 90. An ocellated spot on the upper part of the root of caudal. No spine on the præoperculum; none of the rays produced into a filament; palate smooth.
